

COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

Attached are the requested state and federal forms.

Agreement No. _____

Exhibit _____

NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID FOR PUBLIC WORKS

STATE OF CALIFORNIA)
) ss.
COUNTY OF Colusa)

Doug McGeoghegan , being first duly sworn, deposes and
(name)
says that he or she is Vice President of
(position title)
Maxwell Irrigation District
(the bidder)

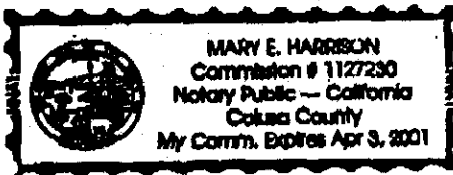
the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

DATED: 9/15/77

By JM Geoghegan
(person signing for bidder)

Subscribed and sworn to before me on
April 15, 1999

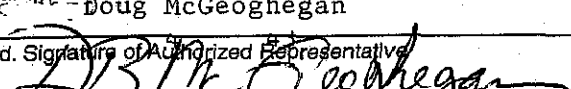
Mary E Harrison
(Notary Public)



(Notarial Seal)

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

		2. DATE SUBMITTED	Applicant Identifier
1. TYPE OF SUBMISSION:		3. DATE RECEIVED BY STATE	State Application Identifier
Application <input checked="" type="checkbox"/> Construction <input type="checkbox"/> Non-Construction	Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction	4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier
5. APPLICANT INFORMATION			
Legal Name: Maxwell Irrigation District		Organizational Unit:	
Address (give city, county, State, and zip code): P.O. Box 217 Maxwell, CA 95955		Name and telephone number of person to be contacted on matters involving this application (give area code) Gilbert Cosio, Jr. 916/456-4400	
6. EMPLOYER IDENTIFICATION NUMBER (EIN): 9 4 - 2 2 7 8 4 8 0		7. TYPE OF APPLICANT: (enter appropriate letter in box)	
8. TYPE OF APPLICATION: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision If Revision, enter appropriate letter(s) in box(es) <input type="checkbox"/> <input type="checkbox"/> A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other(specify):		A. State H. Independent School Dist. <input checked="" type="checkbox"/> G B. County I. State Controlled Institution of Higher Learning C. Municipal J. Private University D. Township K. Indian Tribe E. Interstate L. Individual F. Intermunicipal M. Profit Organization G. Special District N. Other (Specify)	
10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:		9. NAME OF FEDERAL AGENCY:	
TITLE: P.C.		Department of Interior US Bureau of Reclamation	
12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.): Colusa County		11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: Sacramento River Bank & Habitat Restoration Project	
13. PROPOSED PROJECT		14. CONGRESSIONAL DISTRICTS OF:	
Start Date 5/99	Ending Date 10/02	a. Applicant Herger	b. Project Herger
15. ESTIMATED FUNDING:		16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?	
a. Federal	\$ 645,000.00	a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE	
b. Applicant	\$.00	b. No. <input type="checkbox"/> PROGRAM IS NOT COVERED BY E. O. 12372	
c. State	\$.00	<input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW	
d. Local	\$.00	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?	
e. Other	\$.00	<input type="checkbox"/> Yes If "Yes," attach an explanation. <input type="checkbox"/> No	
f. Program Income	\$.00		
g. TOTAL	\$ 645,000.00		
18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.			
a. Type Name of Authorized Representative Doug McGeoghegan		b. Title Vice President	c. Telephone Number (530) 438-2773
d. Signature of Authorized Representative 		e. Date Signed 4/15/99	

ASSURANCES - CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.


PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal interest in the title of real property in accordance with awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 		TITLE VICE PRESIDENT	
APPLICANT ORGANIZATION Maxwell Irrigation District		DATE SUBMITTED 4/15/99	

BUDGET INFORMATION - Construction Programs

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ 30,000 .00	\$.00	\$ 30,000 .00
3. Relocation expenses and payments	\$.00	\$.00	\$.00
4. Architectural and engineering fees	\$ 15,000 .00	\$.00	\$ 15,000 .00
5. Other architectural and engineering fees	\$.00	\$.00	\$.00
6. Project inspection fees	\$.00	\$.00	\$.00
7. Site work	\$.00	\$.00	\$.00
8. Demolition and removal	\$.00	\$.00	\$.00
9. Construction	\$ 550,000 .00	\$.00	\$ 550,000 .00
10. Equipment	\$.00	\$.00	\$.00
11. Miscellaneous	\$ 50,000 .00	\$.00	\$ 50,000 .00
12. SUBTOTAL (sum of lines 1-11)	\$.00	\$.00	\$.00
13. Contingencies	\$.00	\$.00	\$.00
14. SUBTOTAL	\$.00	\$.00	\$.00
15. Project (program) income	\$.00	\$.00	\$.00
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ 645,000 .00	\$.00	\$ 645,000 .00
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.	Enter eligible costs from line 16c Multiply X _____ %		\$ 645,000 .00

U.S. Department of the Interior

**Certifications Regarding Debarment, Suspension and
Other Responsibility Matters, Drug-Free Workplace
Requirements and Lobbying**

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

**PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters -
Primary Covered Transactions**

CHECK ☒ IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -
Lower Tier Covered Transactions**

CHECK ☒ IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART C: Certification Regarding Drug-Free Workplace Requirements

CHECK ☒ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about--
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification numbers(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Check ☐ if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

CHECK ☐ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements

~~CHECK~~ IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND
THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT;
SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL
LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR
SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.

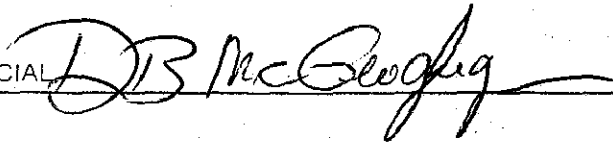
The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL



TYPED NAME AND TITLE

Doug McGeoghegan Vice President

DATE

4/15/99

NOTIFICATION LETTERS

Attached are letters notifying local agencies.

MURRAY, BURNS AND KIENLEN

A CORPORATION
CONSULTING CIVIL ENGINEERS
1616 29th STREET SUITE 300
SACRAMENTO, CALIFORNIA 95816
TELEPHONE (916) 456-4400
FAX (916) 456-0253

ANGUS NORMAN MURRAY
1913 - 1985

JOSEPH D. COUNTRYMAN, P.E.
GILBERT COSIO, JR., P.E.
MARC VAN CAMP, P.E.

JOHN F. WRIGHT, P.E.
MICHAEL C. ARCHER, P.E.
JEFFREY E. TWITCHELL, P.E.
MARK E. FORTNER, P.E.
DON T. TRIEU
THOMAS R. HICKMANN
TEDDY D. RAMIL

CONSULTANTS:
JOSEPH I. BURNS, P.E.
DONALD E. KIENLEN, P.E.

April 16, 1999

Colusa County Planning Department
220 12th Street
Colusa, CA 95932

Subject: CALFED Proposal for Levee and Habitat Protection Project

To Whom It May Concern:

Notice is hereby given that Maxwell Irrigation District (MID) has submitted a CALFED proposal to request funding to repair erosion just upstream of its pumping plant on the right bank of the Sacramento River. The proposed project consists of erosion repair totaling 400 lineal feet using biotechnical methods instead of the traditional methodology of fill and riprap. MID will be developing a Local Involvement Plan to inform interested parties and agencies. If your agency or district would like to be informed of the progress of the project or if you should have further questions, please call me at 916/456-4400.

Sincerely,
MURRAY, BURNS & KIENLEN
Maxwell Irrigation District Engineering Consultants



Gilbert Cosio, Jr.

GC/mv
maxw/L0416991

cc: Maxwell Irrigation District

MURRAY, BURNS AND KIENLEN

A CORPORATION
CONSULTING CIVIL ENGINEERS
1616 29th STREET SUITE 300
SACRAMENTO, CALIFORNIA 95816
TELEPHONE (916) 456-4400
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CONSULTANTS:
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April 16, 1999

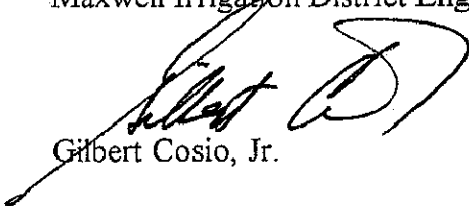
Maintenance Area No. 1
P.O. Box 40
Highway 20
Sutter, CA 959282

Subject: CALFED Proposal for Levee and Habitat Protection Project

To Whom It May Concern:

Notice is hereby given that Maxwell Irrigation District (MID) has submitted a CALFED proposal to request funding to repair erosion just upstream of its pumping plant on the right bank of the Sacramento River. The proposed project consists of erosion repair totaling 400 lineal feet using biotechnical methods instead of the traditional methodology of fill and riprap. MID will be developing a Local Involvement Plan to inform interested parties and agencies. If your agency or district would like to be informed of the progress of the project or if you should have further questions, please call me at 916/456-4400.

Sincerely,
MURRAY, BURNS & KIENLEN
Maxwell Irrigation District Engineering Consultants



Gilbert Cosio, Jr.

GC/mv
maxwL0416991

cc: Maxwell Irrigation District

MURRAY, BURNS AND KIENLEN

A CORPORATION
CONSULTING CIVIL ENGINEERS
1616 29th STREET SUITE 300
SACRAMENTO, CALIFORNIA 95816
TELEPHONE (916) 456-4400
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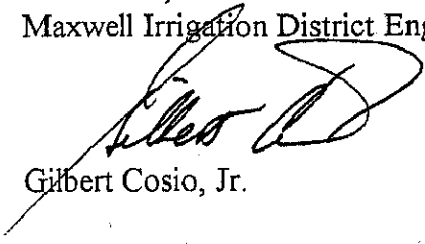
Sacramento River Partners
261 East 3rd Street
Chico, CA 95928

Subject: CALFED Proposal for Levee and Habitat Protection Project

To Whom It May Concern:

Notice is hereby given that Maxwell Irrigation District (MID) has submitted a CALFED proposal to request funding to repair erosion just upstream of its pumping plant on the right bank of the Sacramento River. The proposed project consists of erosion repair totaling 400 lineal feet using biotechnical methods instead of the traditional methodology of fill and riprap. MID will be developing a Local Involvement Plan to inform interested parties and agencies. If your agency or district would like to be informed of the progress of the project or if you should have further questions, please call me at 916/456-4400.

Sincerely,
MURRAY, BURNS & KIENLEN
Maxwell Irrigation District Engineering Consultants



Gilbert Cosio, Jr.

GC/mv
maxwL0416991

cc: Maxwell Irrigation District

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April 16, 1999

Nature Conservancy
13501 Franklin Boulevard
Galt, CA 95632

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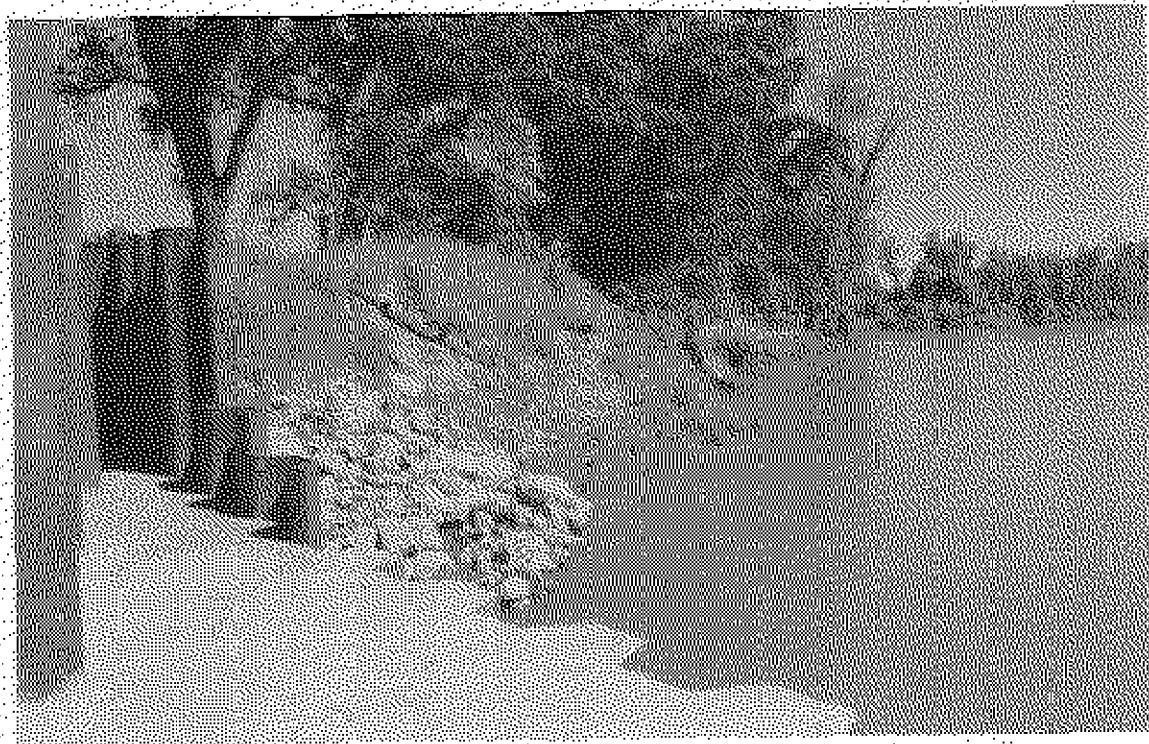
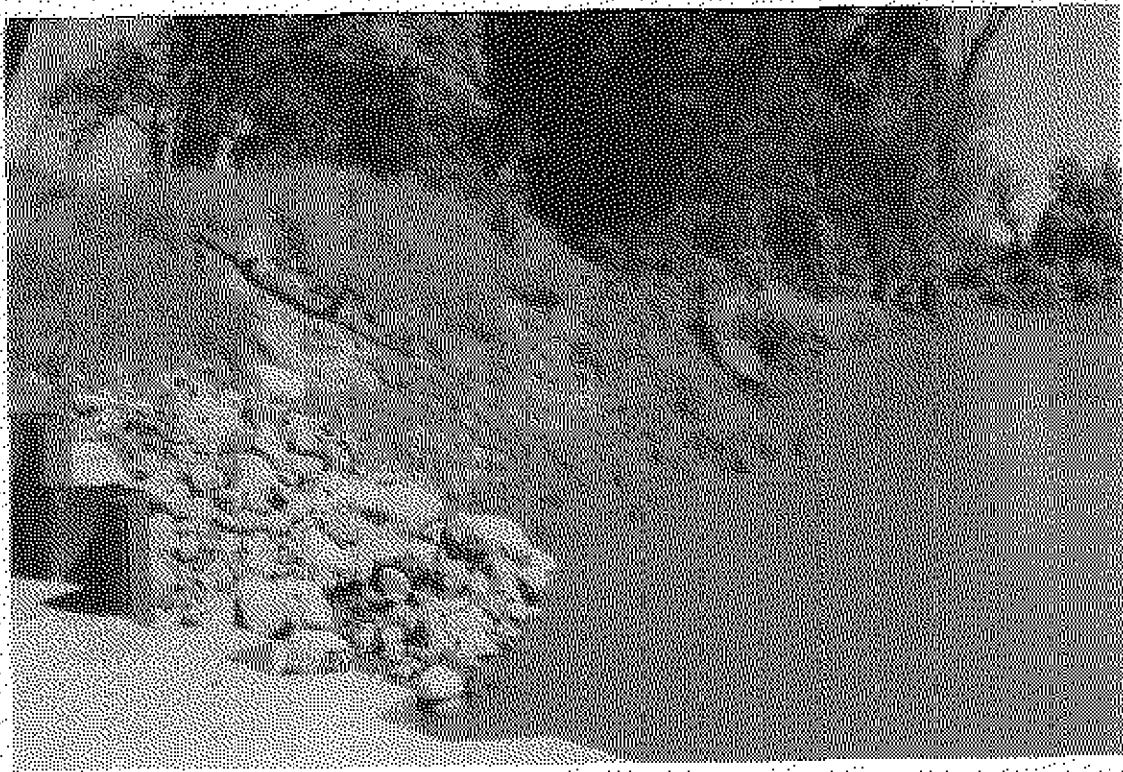
Sincerely,
MURRAY, BURNS & KIENLEN
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Gilbert Cosio, Jr.

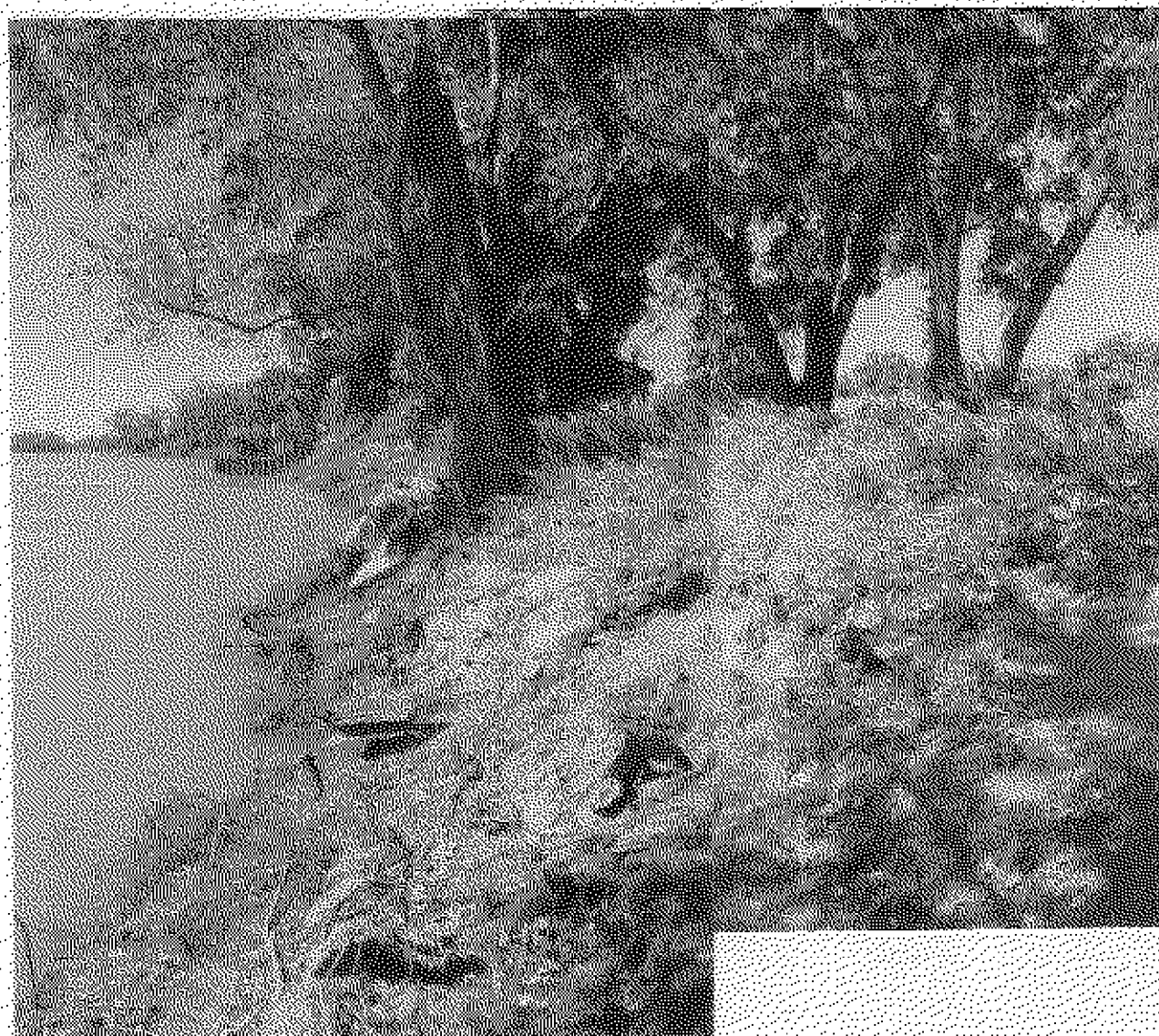
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maxw\LO416991

cc: Maxwell Irrigation District



Looking upstream while standing on platform at Maxwell Irrigation District Pumping Plant

Figure 1

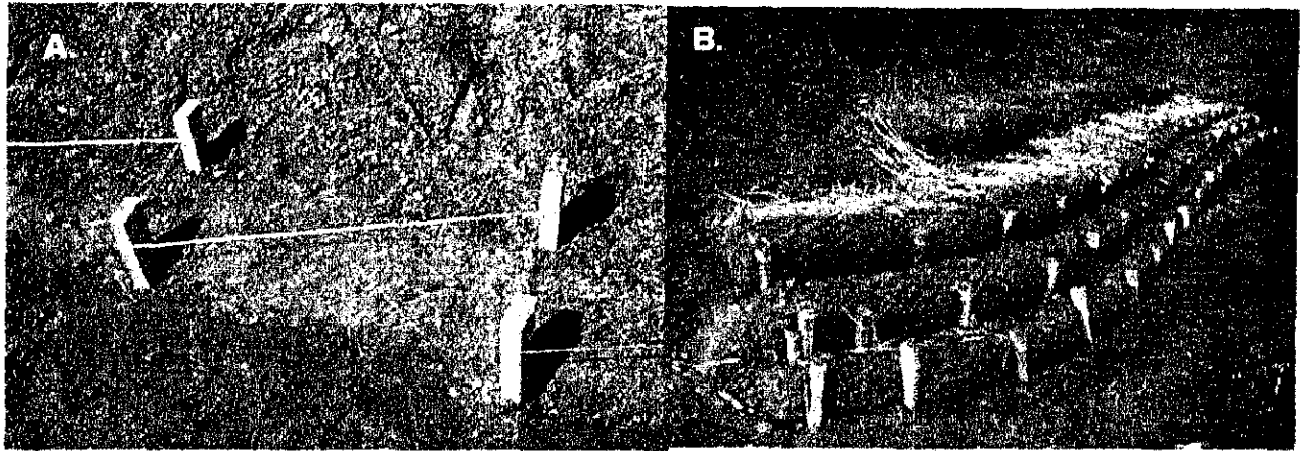


Looking downstream while standing on right bank 400 feet upstream of Pumping Plant

Maxwell Irrigation District Sacramento River Bank & Habitat Protection Project

Biolog Design Above Water

Fibre rolls (or biologs) are made from the fibre of coconut husks that are enclosed in a woven rope mesh made either from coconut fibre or from synthetic polyethylene. They range in diameter from 12 to 20 inches and are about 20 feet long. These biodegradable structures have high tensile strengths, absorb and retain considerable moisture, collect sediment, and can be planted with various kinds of plants. They may be used as breakwater structures or for toe protection.

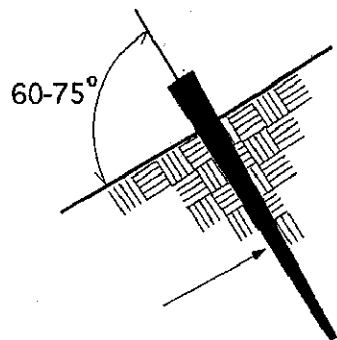


Biologs are rolls or "logs" of coconut fibre material, fastened to embankments for protection against erosion. A. The rolls are placed in soil trenches. Tapered stakes are placed on opposite sides of the rolls and partially driven into the soil at approximately 3-4 foot centers. Twine is attached to the ends of the stakes, and then the entire stake and twine system is driven into the soil, thereby securing the roll into the soil. B. Note that several rolls can be used together.



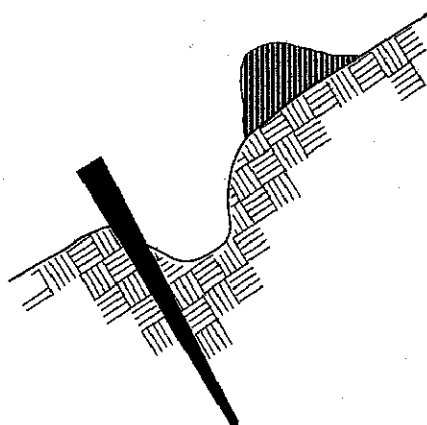
C. Plants can be planted directly into the rolls. D. Biologs attract considerable deposition. After one flooding season they can become entirely filled with sediment, thereby creating ideal conditions for plant growth.

Step 1



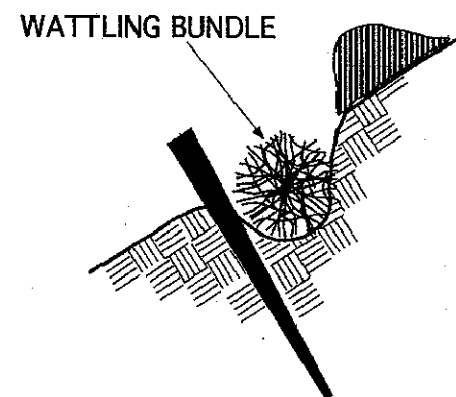
Stake on contour, 3'-4' o.c.

Step 2



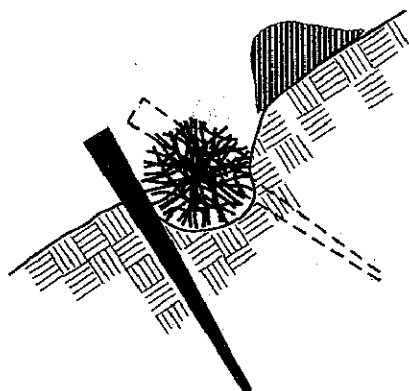
Trench above stakes 1/2
dia. of bundles.

Step 3



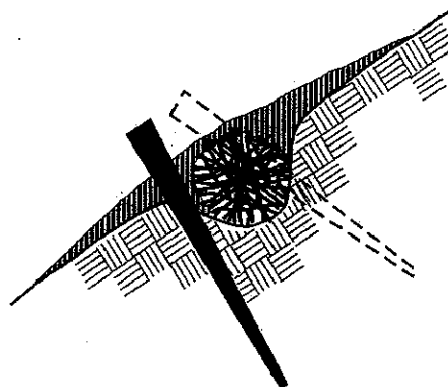
Place bundles in trench.

Step 4

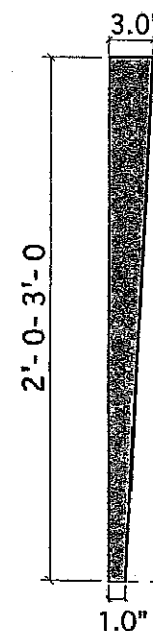


Add stakes through and
below bundles.

Step 5



Cover wattling bundle with
soil, tamp firmly.



2"X4" Stud wedged in half

Stake Construction

Sequence of Steps For Installing Wattling

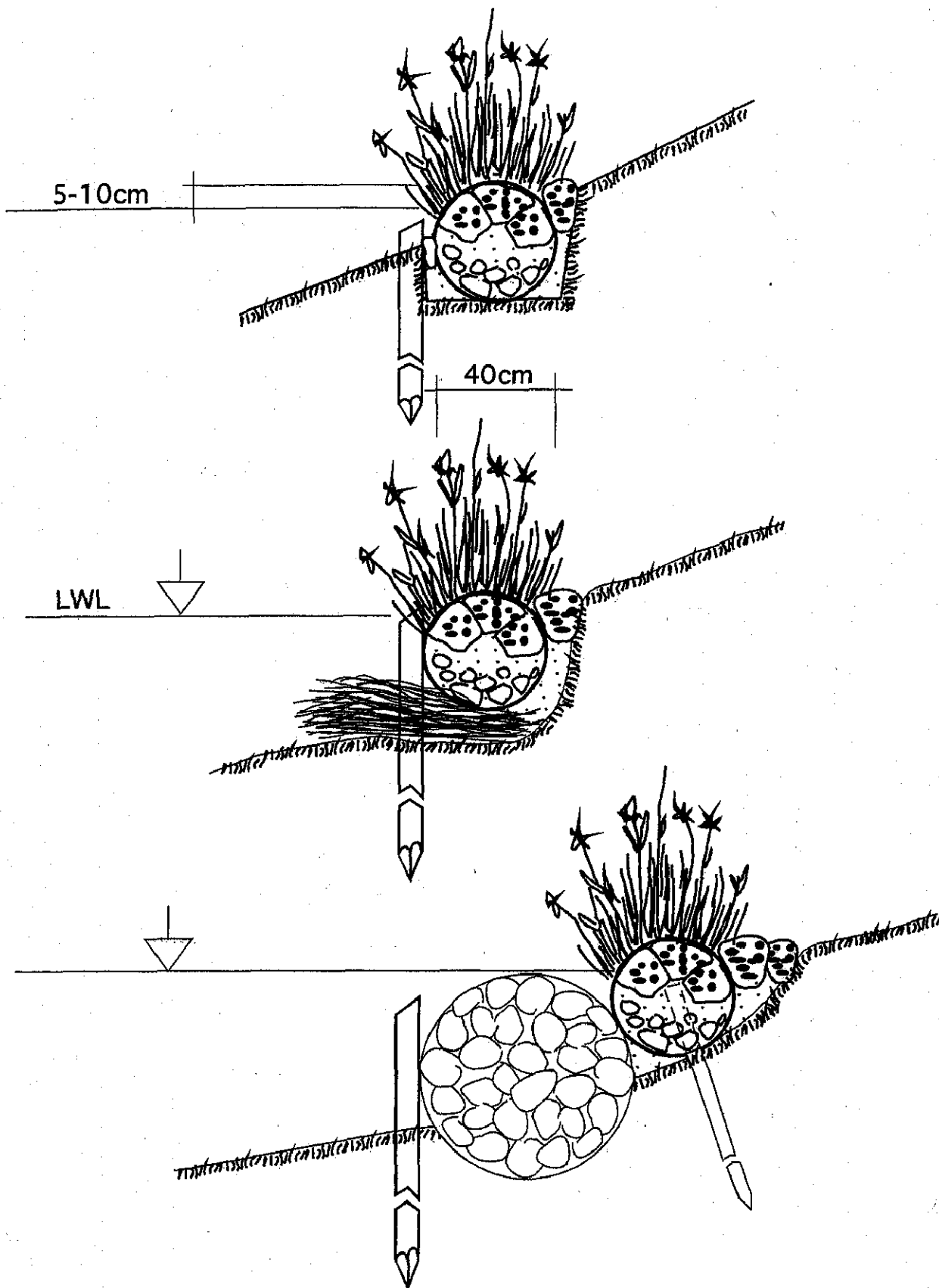


Diagram of a reed roll (swamp sod roll).

Bioengineering for Land Reclamation and Conservation by Hugo Schiechl
page 148 figure 197

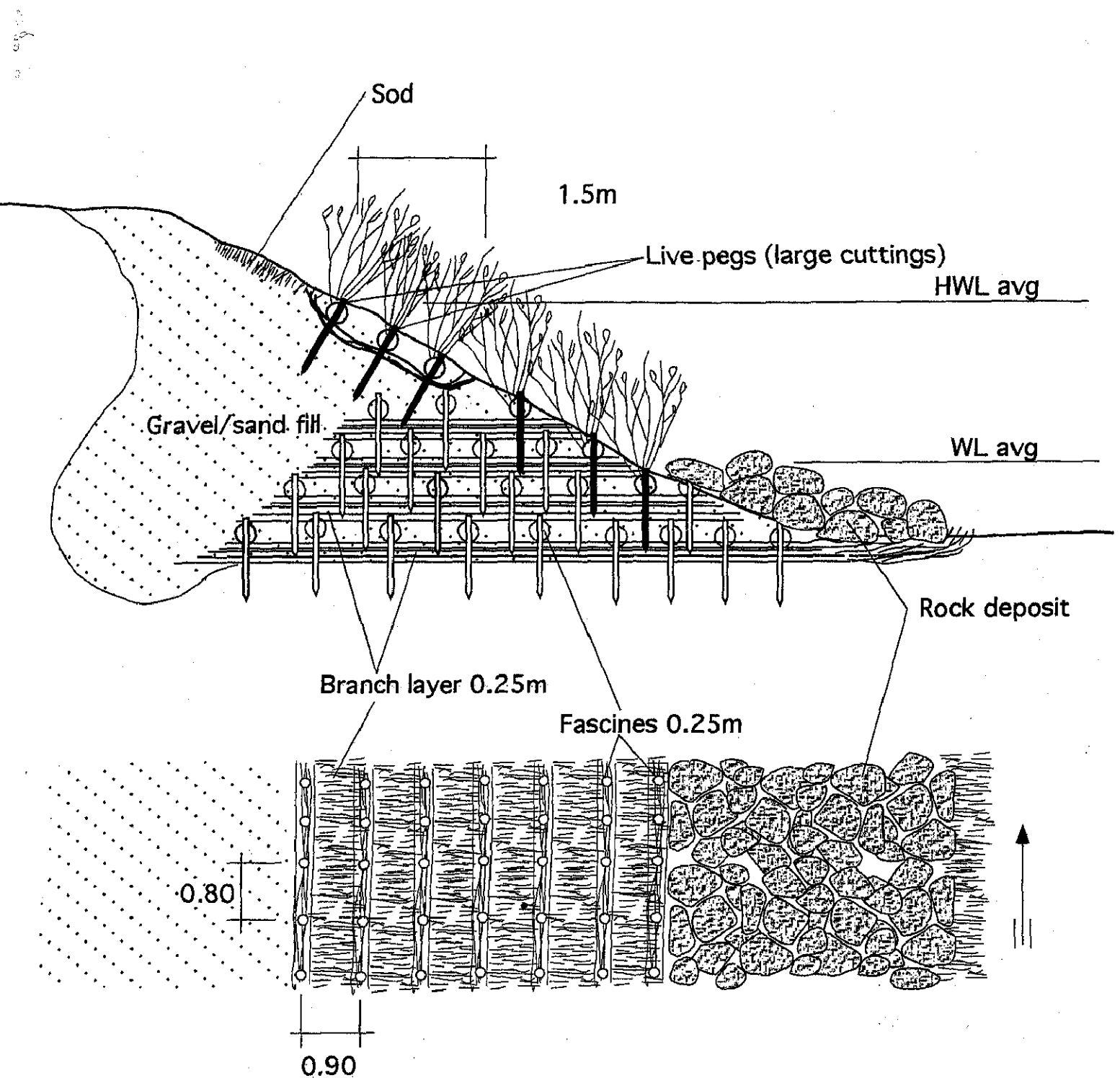
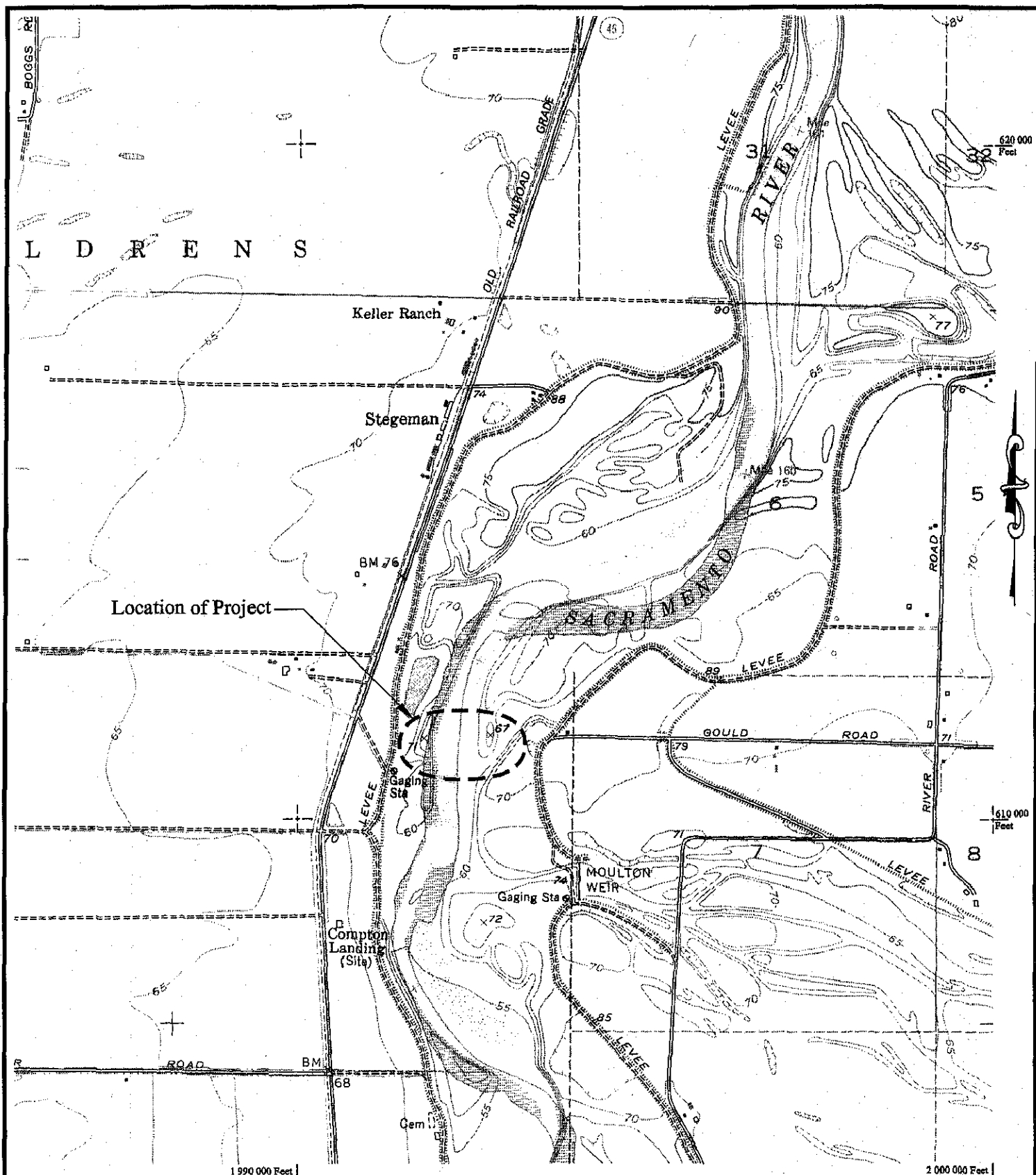


Diagram of branch packing for shore protection.

Bioengineering for Land Reclamation and Conservation by Hugo Schiechtl
page 161 figure 214



Source: United States Geological Survey



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Maxwell Irrigation District LOCATION MAP

SCALE:	1" = 200'	SHEET
JOB NUMBER:	2475	1
DRAWN BY:	TDR	OF
DATE:	April 1997	1
		SHEETS
<small>Bar Length On Original Drawing Equals One Inch. Adjust Scale Accordingly</small>		

FIGURE 7